IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Vassey	
Application No.: 10/598,654	Group Art Unit: 2178
Filed: 03/21/2007	
	Examiner: Stork
Title: Script Generation	
Attorney Docket No.: 760-022	

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

PRE-APPEAL BRIEF REQUST FOR REVIEW

Dear Sir:

Please consider this Request in response to the Final Office Action of July 1, 2010. Claims 1-29 are pending in this application. All of the pending claims are rejected.

Claims 1-29 are rejected under 35 U.S.C. 103(a) as being obvious based upon EP 1100013 (Maes) in view of US 6314415 (Mukherjee). Maes describes a "conversational markup language" which translates "conversational gestures." In other words, content originally presented in one markup language is translated into a different markup language so that it can be presented on a different device, e.g., rendering a web page on a cell phone. The translation may change the way content is presented because different devices and markup languages have different limitations, e.g., phones tend to have smaller screens than PCs. Mukherjee describes dynamic GUI generation. More particularly, selection of features for display is automated. The Office must consider each claim as a whole, but with regard to the novel and non-obvious step of "determining the invocation sequence of the identified update functions for each trigger question by using the activation network" the rejection relies upon Maes at 0018, 0022 and 0108-0109, and Mukherjee at figures 3A-3L and column 2:19 through column 3:5. Applicant focuses on that limitation in order to narrow the issues presented.

The preamble of each of the independent claims when read in the context of the entire respective claim body describes the context of the claimed invention. During examination, statements in the preamble reciting the purpose or intended use of the claimed invention must be

evaluated to determine whether the recited purpose or intended use results in a structural difference (or, in the case of process claims, manipulative difference) between the claimed invention and the prior art. If so, the recitation serves to limit the claim. See, e.g., *In re Otto*, 312 F.2d 937, 938, 136 USPQ 458, 459 (CCPA 1963). As indicated by the claim language, the pending claims are related to the sequence in which update functions are invoked by automated document generation systems. Automated document generation systems typically generate a customized document such as a legal contract by using a template and answers submitted in response to a questionnaire form. For example, a user without legal expertise would input answers to questions posed by the questionnaire, and those answers would be used to generate a document from the template by selecting particular clauses of legal significance to include or exclude along with other content that may always be included. Questionnaires have been used for other purposes and it is now known that different questions can be related in the sense that the answer to one question may determine or change the possible answers to another question, or invalidate the other question entirely. For example, if the answer to the question "gender?" is "male" then the answer to "title?" must be "Mr." and the question "pregnant?" is invalid. Similarly, if the answer to "title?" is "Mr." then "gender?" is "male" and "pregnant?" is invalid. This basic condition is described in the specification[1] as follows:

> the form in Figure 1a illustrates a typical form that may be generated by a document generation program. The example chosen is that of providing details of a buyer in a purchase contract. Similar forms may be generated by other types of form generators, such as database engines, for example, Oracle 8i™. These forms all have an element of dynamic behaviour in common, in that answering a question or providing a variable or value affects other questions appearing on the form.

However, simply knowing that questions are related is insufficient to avoid problems because answers may also be related and the order in which the answers to questions are used can affect the result. For example, if "state of incorporation?" is Delaware and "state of residence?" is Massachusetts then a jurisdiction clause selected based on the question "jurisdiction?" may end

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[1] Page 8, line 23 through page 9, line 3

up being **either** Delaware **or** Massachusetts based on the order in which the questions are answered.[2] This is described in the specification[3] as follows:

> The problem to be addressed is in what sequence all the update functions are invoked for each different trigger element. In order to determine these invocation sequences an activation network is constructed from the form elements (the nodes on the network) and the update functions (the arrows connecting the nodes).

The claimed invention seeks to mitigate such unacceptably random results by determining the sequence in which to invoke update functions by identifying the trigger questions and then using an activation network to select the invocation sequence for the update functions associated with those trigger questions. As described in the specification[4]:

> The order in which each update is carried out is determined by the condition that all functions which lead to an update of an element are carried out before that element is subsequently used to update another: all functions corresponding to arrows entering a form element must be completed before the function corresponding to an arrow leaving the form element can be executed.

One embodiment of this feature is described in the specification[5] as:

> The sequence in which update functions are invoked (the invocation sequence) for each trigger element is determined by a breadth-first expansion of the activation network. In this expansion, any acyclic path of length N from a first node X to a second node Y is expanded into a path of length N+1 from the first node X to a third node Z by appending a path of length 1 from the second node Y to the third node Z.

It will therefore be appreciated that the invention recited in the pending claims not only determines whether questions are related but also determines an invocation sequence for

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[2] More typically, each question is assigned a value based on its answer, and the order in which those values are applied to the template (invoked) after all of the questions have been asked and answered causes the difficulty rather than the order in which the questions are asked or answered. The order of answering is used to illustrate the problem because it conveys the same principle in more easily understandable terms, i.e., what would happen if update functions were invoked as questions were answered.

[3] Page 11, lines 21-25

[4] Page 13, lines 1 through 5

[5] Page 12, lines 17 through 22

applying the answers to those questions. Consequently, creating a questionnaire or adding questions to an existing questionnaire is enhanced via automation.

Turning now to the rejections, there is no suggestion in the references of determining an invocation sequence of update functions for trigger questions by using an activation network. Paragraph 0018 of Maes simply describes how different modalities (browsers) are synchronized, e.g., when a user provides input via mobile browser "A," that input is immediately translated into corresponding input for standard browser "B." Note that the order in which that input is supplied is driven manually by the user, and the order in which input is invoked is not even considered. Even the previous characterization of the examiner that "upon identifying an update function, the CML interpreter determines the CML function to be invoked to handle the update" does not meet the recited limitation of determining an *invocation sequence*. In other words, finding *the* CML function corresponding to an update function does not yield a *sequence of functions*. Mukherjee recognizes that questions can be related but fails to recognize that the order in which the answers to questions are used can also change the result. Mukherjee also fails to describe determining how answers to questions are hierarchically related. In sum, neither reference provides any suggestion of determining an invocation sequence of identified update functions for each trigger question by using an activation network.

In the Response To Arguments the examiner counters that Maes discloses identification of trigger elements from the elements of the form in the update functions that trigger the invocation of the update function at paragraphs 0018, 0022 and 0061, i.e., the selection "order drink" causes invocation of the update function. Paragraph 0018 is already discussed above. Paragraph 0022 similarly describes cosmetic altering of the presentation so it can be ported to a different device. Paragraph 0061 and figure 3 describe a specific example where one question on a web page is converted to either voice for presentation on a desktop phone or to a format suitable for display on a cell phone screen. The paragraph and figure cannot possibly support the rejection because only one question is presented. There can be no sequence determined when there is only one question. Recall that the presently claimed invention is directed to problems caused by answers to *different questions* being hierarchically related or the order in which answers to *different questions* are used affecting the result. In the context of Maes for example, and ignoring the context of document generation recited in the pending claims, if a first question prompted the drink selection and a second question prompted a meal selection and the selected

meal included a drink other than that selected in response to the first question then there could be some ambiguity about which drink the person actually wanted. Such ambiguity is not created when one simple question is presented as described by Maes in paragraph 0061 and figure 3.

In the Response To Arguments the examiner also counters that use of an acyclic graph and breadth-first expansion to determine the order in which update functions are invoked is not disclosed in the claims. Applicant did not argue that such limitations were in the claims, although the Office should note that using an activation network is recited in the claims. Applicant quoted passages from the specification so that the examiner might appreciate the context of the invention and what is involved in at least one embodiment of determining the invocation sequence of the identified update functions for each trigger question by using the activation network. With all due respect, the cited references are less relevant than the AAPA and cannot be reasonably combined or modified to result in even a general system for producing a customized document from a template document and questionnaire form as recited in the preamble of claim 1. Note for example that Maes modifies the presentation of a question rather than using the answer to a question to select content from a template to produce a customized document. The words of the claim must be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). The rejections are based on misinterpretation of the cited references and an untenably broad interpretation of the claim limitations.

Respectfully Submitted,

September 2, 2010   /Holmes W. Anderson/
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